

CAFO Monitoring in 2002

The first permanent monitoring stations around animal feeding operations were begun in the spring of 2002. Only two sites were operated in 2002, and monitoring was limited to hydrogen sulfide (H_2S). The monitoring stations were located near the towns of Williams and Clarion, and were sited near some the largest confined animal feeding operations in the state. Details regarding the general location of these monitors, and the name of the closest animal feeding operation, are presented in the table on the following page. An aerial photo of each site precedes the graphical data analysis for that site. Raw data used to create the graphs was downloaded from the AIRS database on 11/19/03. There are two types of plots for each site.

In the first graph, the concentration of hydrogen sulfide (in parts per billion by volume) is plotted against time. Data that failed quality assurance checks, along with instrument malfunctions, resulted in occasional gaps in the time series.

The second type of graph shows the relation of the hydrogen sulfide concentration to wind direction. The direction the wind is coming from is specified using an angle between 0 and 359 degrees. 0 represents a wind from due North, and the angle increases in a clockwise direction. For example, an angle of 90 specifies a wind from the East, 180 indicates a wind from the South, etc.

CAFO Monitoring Sites - 2002

Nearby Town	County	Animal Type at Closest Operation	Name of Closest Operation	Site Type	Permitted Weight in lbs.
Clarion	Wright	Swine	DeCoster #15 Sow Site	2	1,827,265
Williams	Hamilton	Swine	DeCoster #7 Finishing	3	2,100,000

Site Type	Explanation
1	In ambient air, on property associated with a residence, close to an animal feeding operation
2	In ambient air, on property associated with a residence, close to house
3	In ambient air, not on property associated with a residence

Clarion Monitoring Site

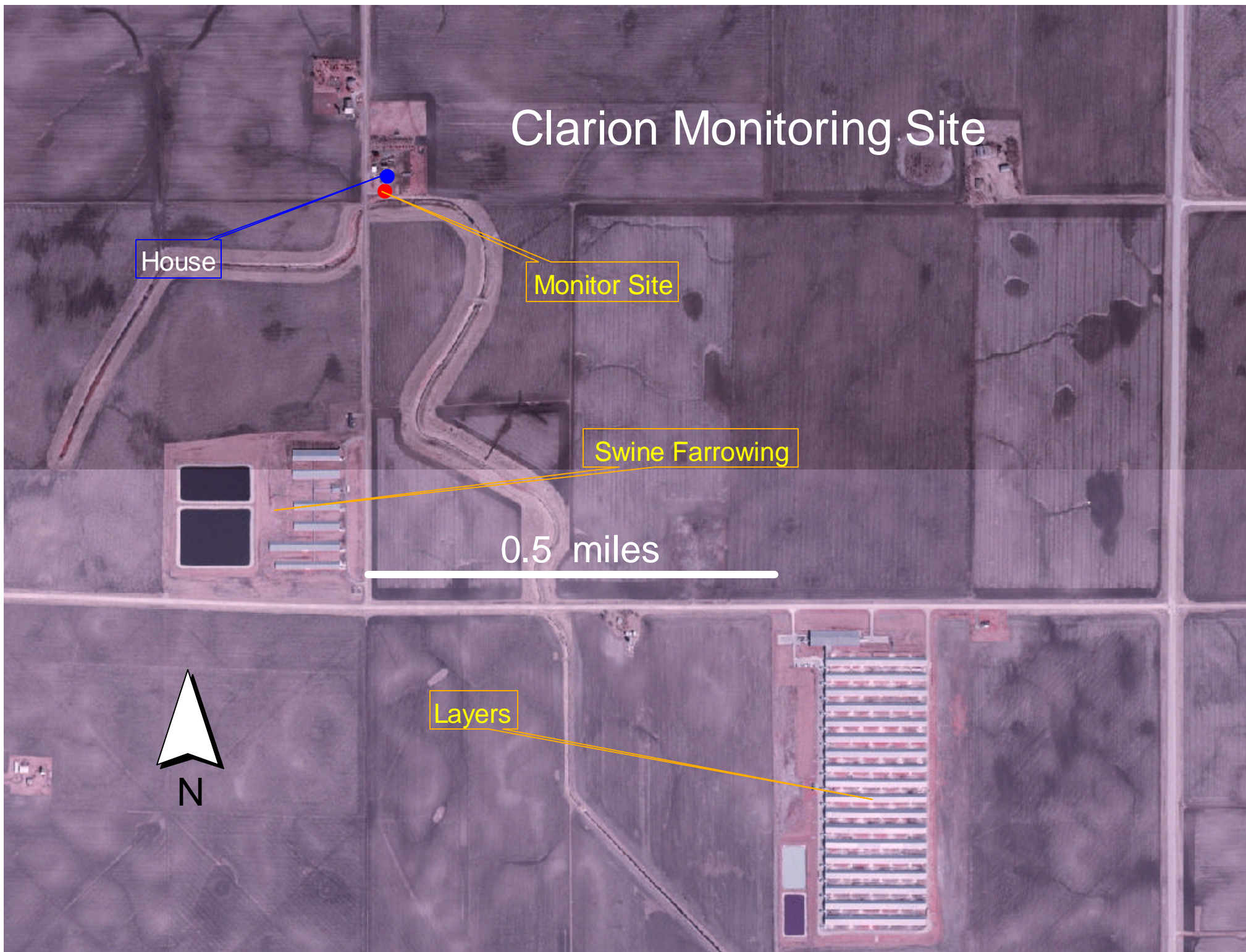
House

Monitor Site

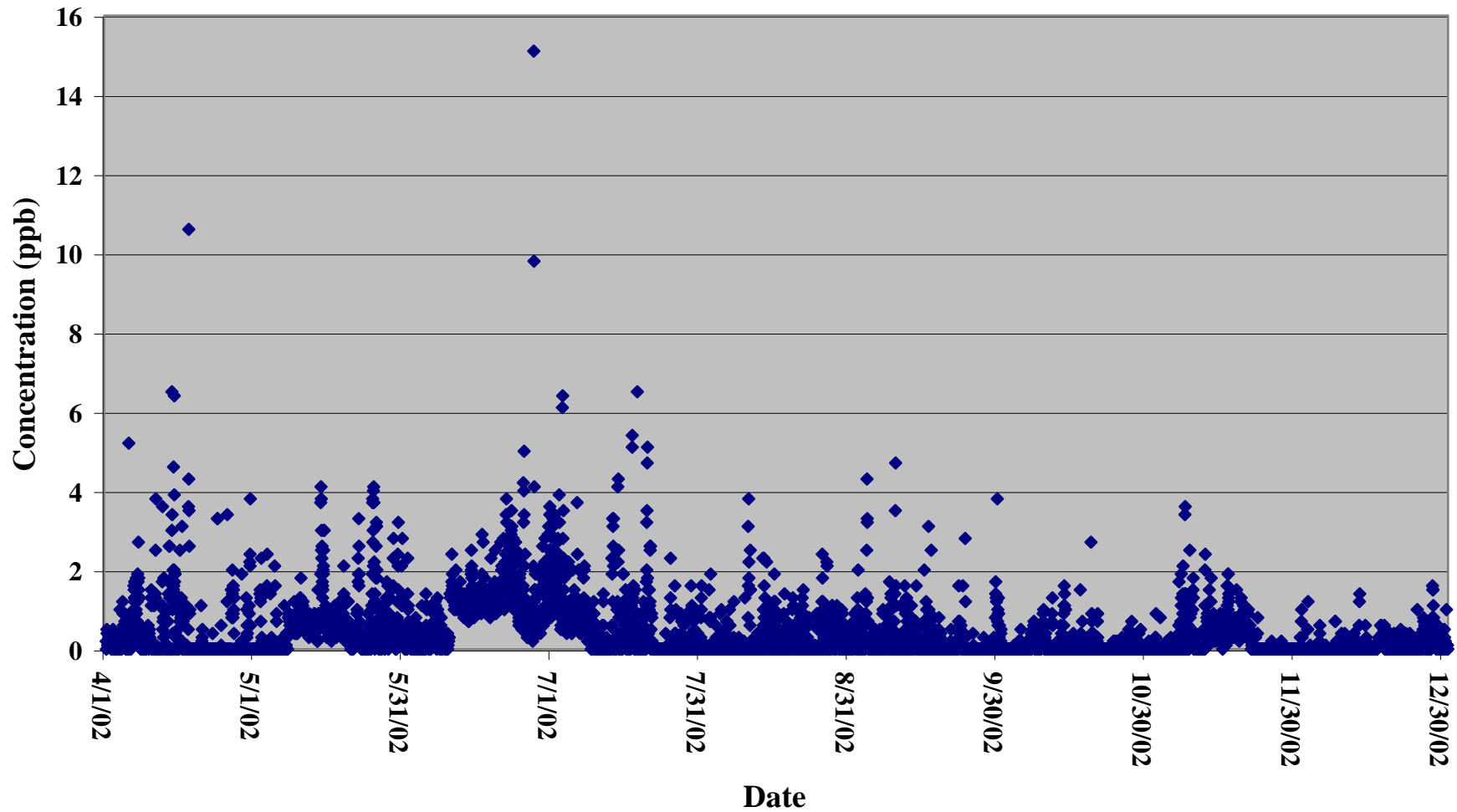
Swine Farrowing

0.5 miles

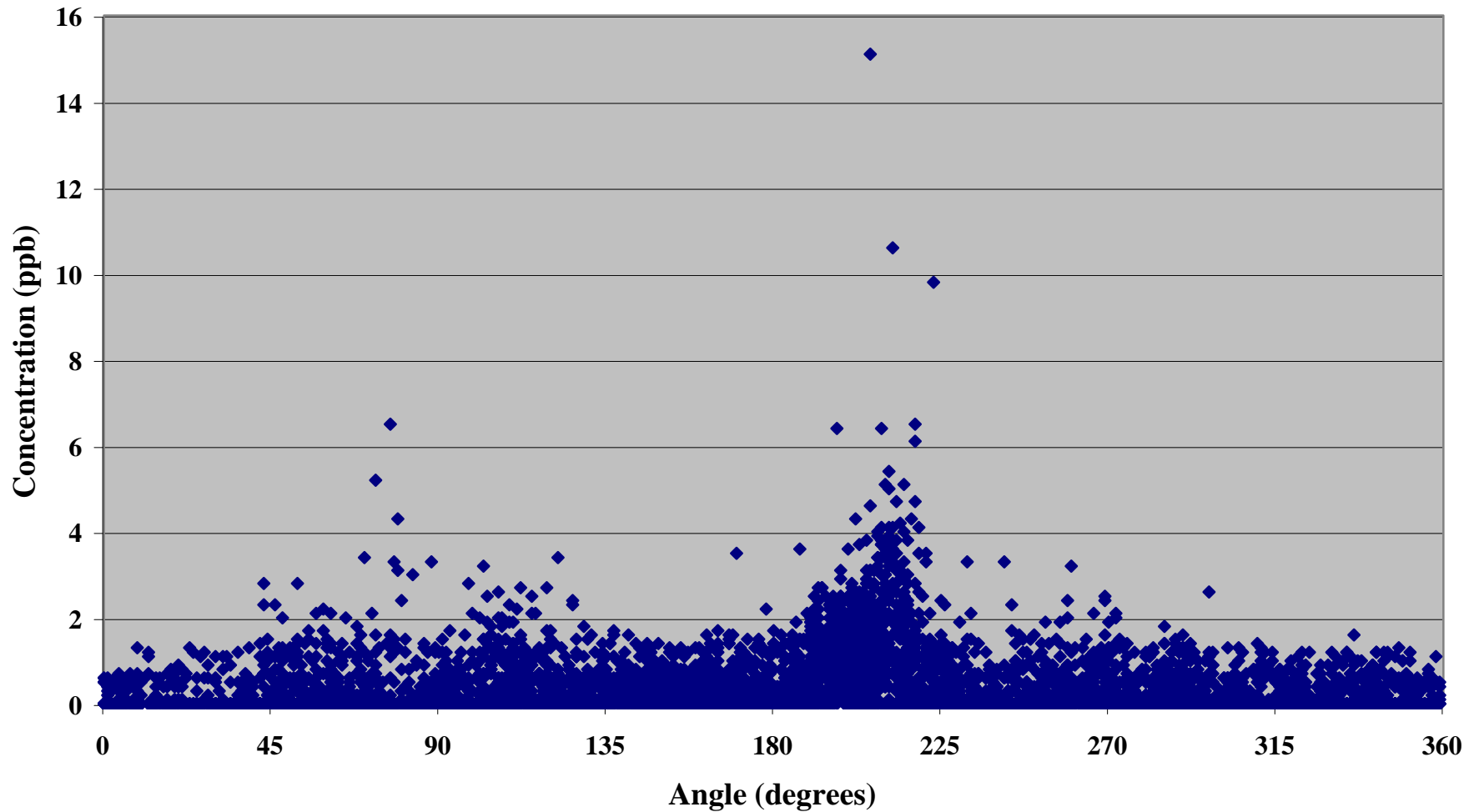
Layers



Hydrogen Sulfide at a Monitoring Site Near Clarion (Monitoring began 4/1/02)



**Hydrogen Sulfide vs Wind Direction
at a Monitoring Site Near Clarion (Monitoring began 4/1/02)**



Williams Monitoring Site

Monitor Site

Swine

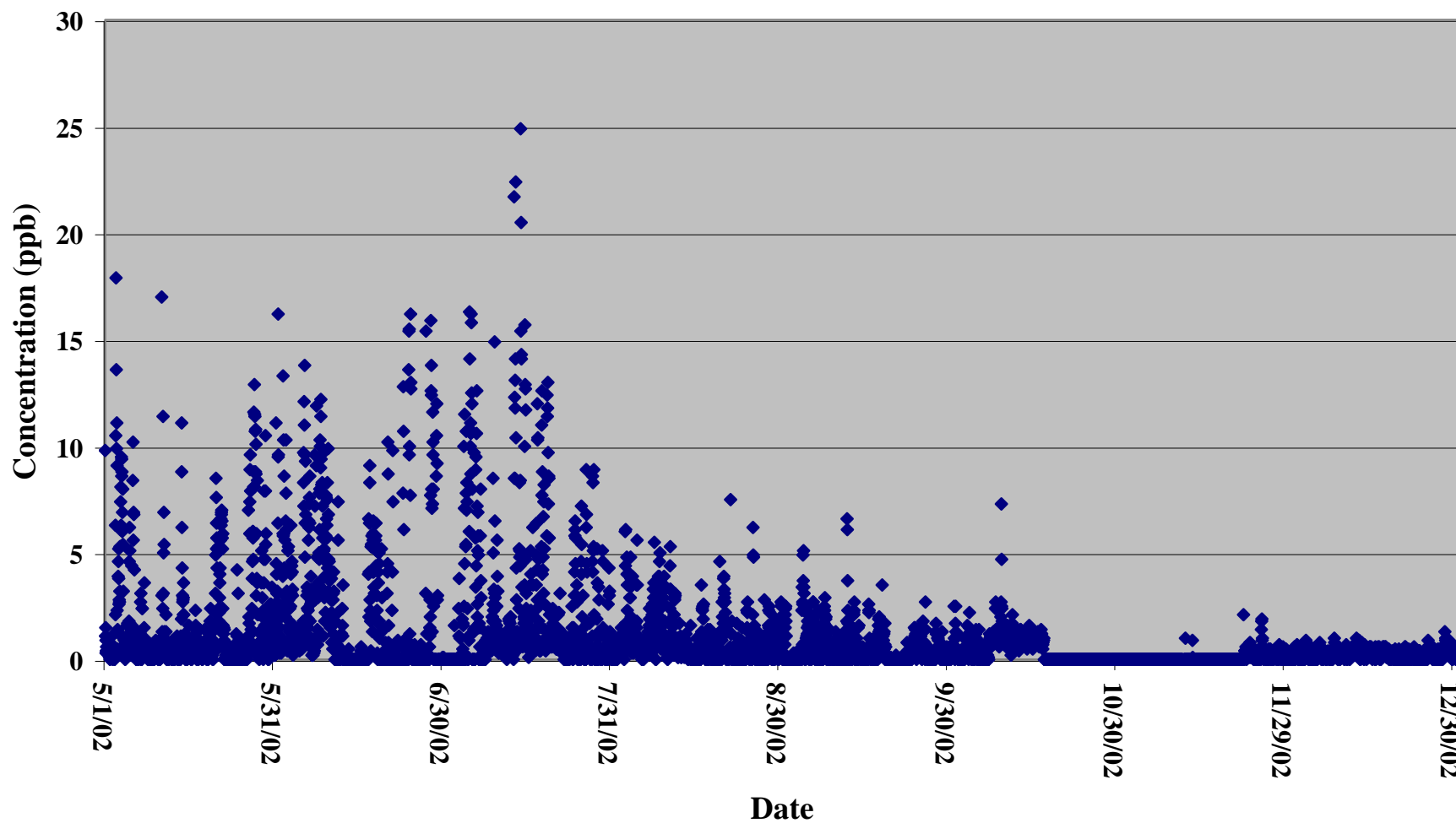
Swine (vacant)



0.5 miles



Hydrogen Sulfide at a Monitoring Site Near Williams (Monitoring began 5/1/02)



**Hydrogen Sulfide vs Wind Direction
at a Monitoring Site Near Williams (Monitoring began 5/1/02)**

